



**O<sub>2</sub>XPRESS™**

PNEUMATIC DEMAND OXYGEN CONSERVER  
Model 8511/8512

Operating Instruction Manual



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## DEVICE INFORMATION

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Record the following information for easy reference regarding your O<sub>2</sub>XPRESS™ Conserver.

Physician Name \_\_\_\_\_

Physician Phone \_\_\_\_\_

Prescribed Flow Rates \_\_\_\_\_

Rest \_\_\_\_\_

Exercise \_\_\_\_\_

Dealer Name \_\_\_\_\_

Dealer Phone \_\_\_\_\_

Purchase Date \_\_\_\_\_

# INTRODUCTION

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Salter Labs O<sub>2</sub>XPRESS™ Pneumatic Demand Oxygen Conserver is lightweight, easy to use demand oxygen conserver designed for the ambulatory patient. When used with a portable oxygen cylinder, the O<sub>2</sub>XPRESS™ Conserver delivers a discrete burst of oxygen during inhalation and shuts off oxygen delivery during exhalation when you do not need it.

The O<sub>2</sub>XPRESS™ Conserver incorporates an integral high pressure regulator and connects directly to a medical oxygen cylinder. The conserver is pneumatically operated, so it does not require batteries or any other external power source.

The O<sub>2</sub>XPRESS™ Conserver will typically provide up to 3:1 oxygen saving over a continuous flow device at equivalent flow rates. This estimate is based on an inspiration: expiration (I:E) ratio 1:2 at 20 breaths per minute.

To maximize your benefit from the O<sub>2</sub>XPRESS™ Conserver, it is important for you to read and understand the information in this instruction manual. By following your doctor's advice and these simple instructions, your O<sub>2</sub>XPRESS™ Conserver will become a valuable part of your daily routine.

**CAUTION** Use only as prescribed by your physician. Read all warnings and instructions before use. Improper use can result in serious or fatal illness or injury.

**CAUTION** Federal law (USA) restricts this device to sale by or on the order of a physician.

## IMPORTANT SAFEGUARDS

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### READ ALL INSTRUCTIONS BEFORE USING

**DANGER** - To reduce the risk of fire, burns, or injury:

- ‘ DO NOT smoke when oxygen is being used. DO NOT allow flames or sparks anywhere near oxygen equipment or the cannula during use or storage
- ‘ DO NOT cover or carry the device under clothing. The conserver vents a small amount of oxygen during operation.
- ‘ DO NOT use oil, grease, or other petroleum-based materials on the device. The conserver does not require lubrication.
- ‘ Rapid pressurization can increase the risk of fire. SLOWLY open the cylinder valve to start the flow of oxygen with the flow rate selector on the conserver set to the OFF position
- ‘ CLOSE the cylinder valve and turn the conserver off when not in use. ALWAYS close the cylinder valve first before disconnecting the conserver from the cylinder.
- ‘ If a leak is detected, CLOSE the cylinder valve and reposition the conserver on the cylinder post.
- ‘ Replace a dirty or worn inlet seal washer with a new Viton rubber/bass washer supplied by Salter Labs. Do not use any other washer as it could increase the risk of fire. Ensure that the inlet and surrounding area are clean and free of debris.

**WARNING** - To reduce the risk of injury:

- ‘ Use this product only for its intended use as described in this manual.
- ‘ Use only oxygen from an approved oxygen source. This equipment delivers supplemental oxygen and is not to be considered life-supporting.
- Use only cannulas and accessories specified by Salter Labs. Do not use a mask with the conserver
- ‘ Momentarily open the cylinder valve to clear the cylinder outlet of debris before connecting the conserver.
- ‘ Inspect the inlet connection and washer on the conserver to ensure it is clean. Replace the washer if necessary. If the oxygen inlet is clogged or contaminated, DO NOT use the conserver. Contact your Salter Labs dealer or authorized service center
- ‘ DO NOT connect the conserver to an oxygen source that has a pressure greater than 3000 psig.
- ‘ Allow the conserver to return to room temperature before operation if it has been stored in extremely hot or cold temperatures.
- ‘ DO NOT use the conserver with a humidifier.
- ‘ The conserver should not be used while sleeping unless approved by your physician
- ‘ DO NOT allow any liquid to enter the device. Clean the conserver only as instructed.
- ‘ DO NOT operate the conserver if it is not working properly, if it has been dropped or damaged, or if it has been immersed in any liquid. Contact your Salter Labs dealer or authorized service center if your device needs repair.
- ‘ DO NOT turn or attempt to remove the pressure gauge. The gauge is locked into place and not threaded.
- ‘ DO NOT tamper with or attempt to repair the device. There are no user serviceable parts inside the unit. Except for instructed user maintenance, all device servicing must be performed by a Salter Labs authorized service center.
- ‘ Use care in handling and storing oxygen cylinders. Do not allow cylinders to fall. Do not store cylinders near any source of heat or flame.

## **Professional Instructions for Use**

The O<sub>2</sub>XPRESS pneumatic demand oxygen conserver has been tested and demonstrated to maintain oxygen saturations equivalent to steady flow at all settings. However, the actual clinical results obtained in individual patients may vary with the settings utilized and their individual breathing patterns. For this reason, it is highly recommended that, as with oxygen delivery device, patients be individually tested to titrate dosing and to determine the suitability of this device to meet their unique and varying individual needs and dosage requirements.

# SYSTEM COMPONENTS

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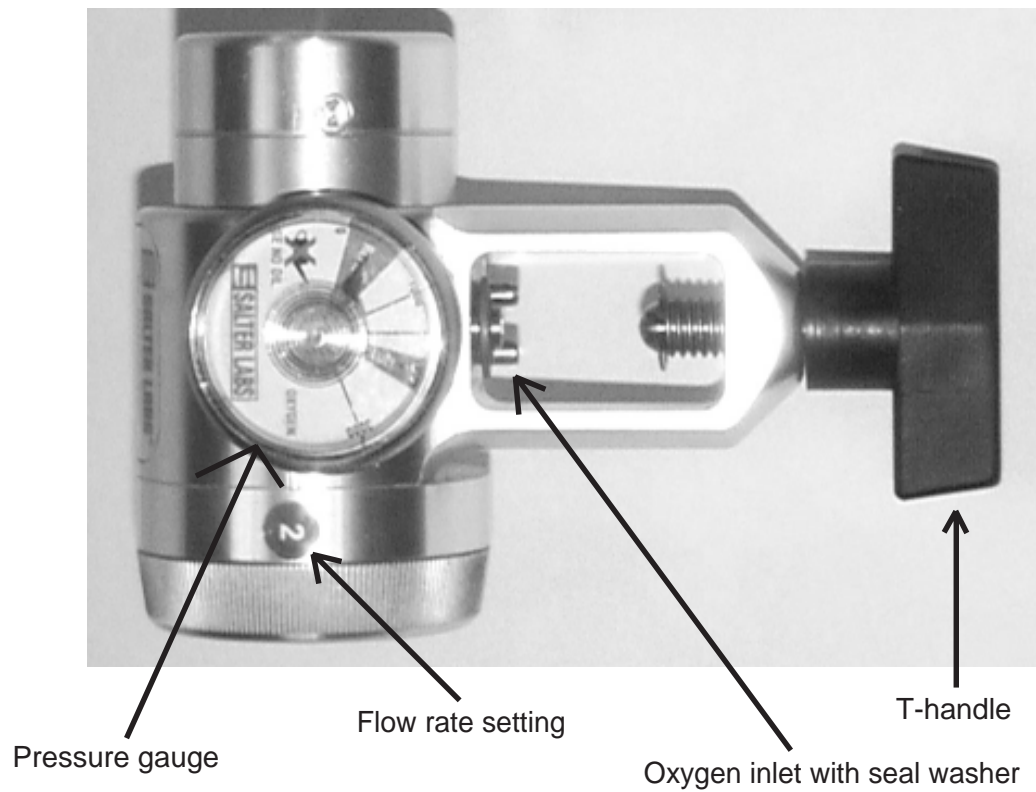


Figure 1

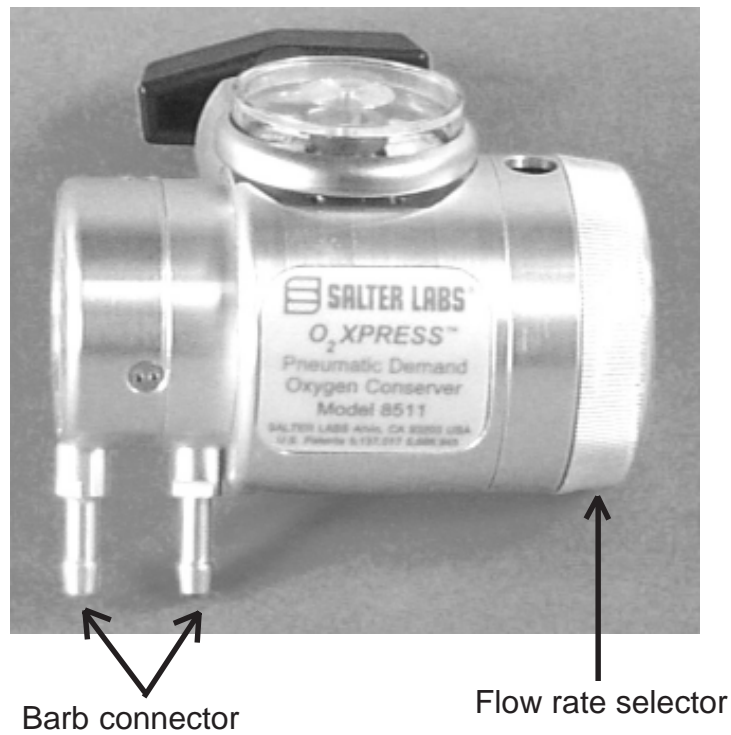


Figure 2

# SETUP AND OPERATION

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## CONNECTING TO THE CYLINDER

1. Remove the seal from the cylinder if present.
2. Point the outlet of the oxygen cylinder away from you. Momentarily open and quickly close the cylinder valve to clear the outlet of any debris with a short blast of oxygen.
3. Check the conserver to ensure the inlet seal washer at the oxygen inlet is in place and in good condition. Replace a dirty or worn washer with a new Viton rubber/brass washer. Check that the inlet is clean and free of debris (Figure 1).
4. Loosen the T-handle counterclockwise and slide the conserver over the cylinder post. Align the two pins on the conserver with the matching holes in the cylinder post.
5. Secure the conserver to the cylinder post by turning the T-handle clockwise until hand tight (Figure 3).
6. Place the cylinder and conserver in its carrying case or cart.

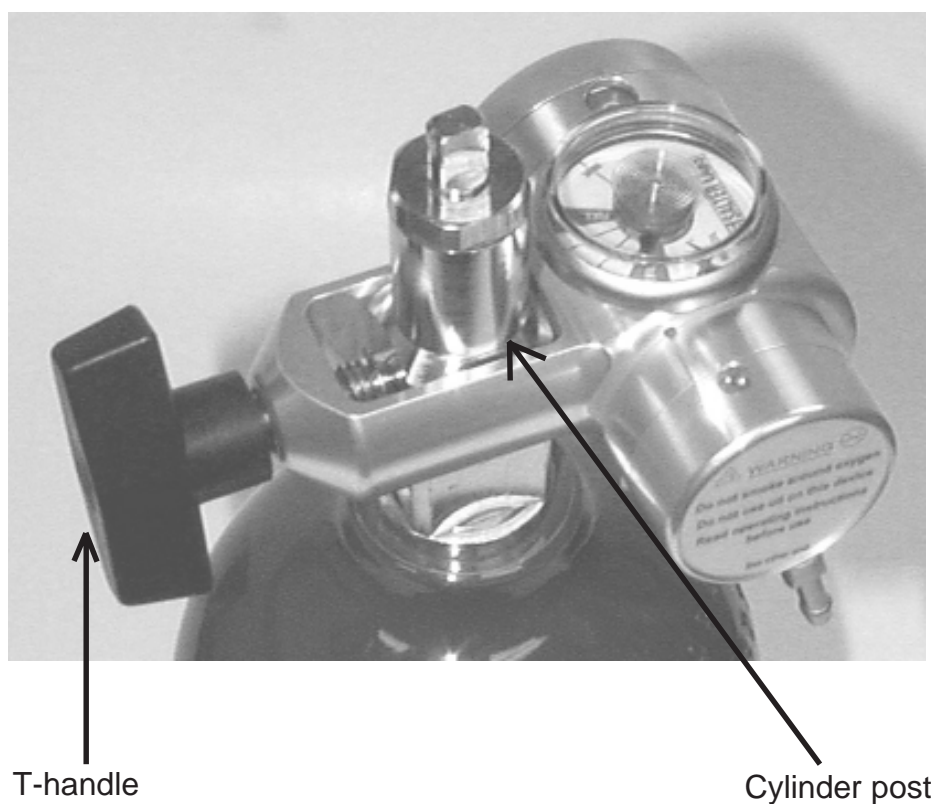
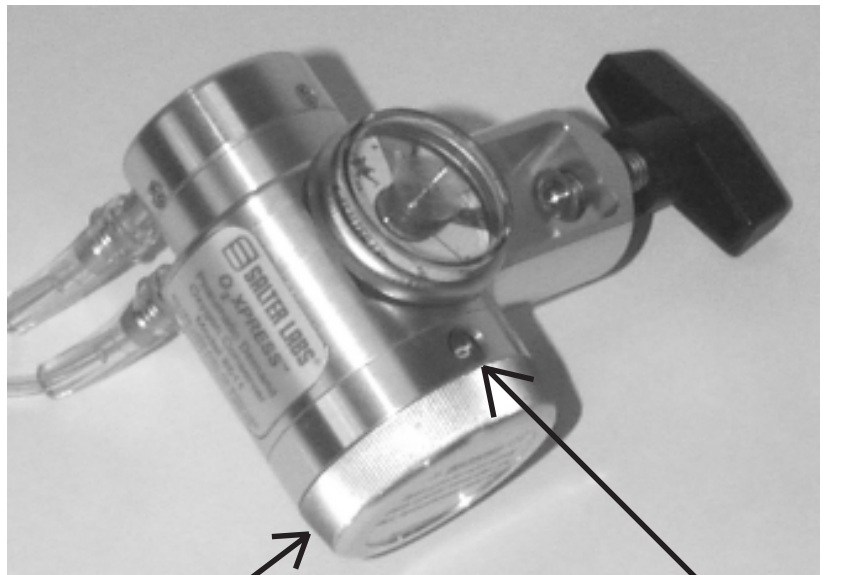


Figure 3

# STARTING OPERATION

**WARNING** - Use only cannulas specified by Salter Labs. Do not use a mask with the conserver.

1. Firmly press the two ends of the cannula onto the two barb connectors on the bottom of the conserver. The orientation of the cannula makes no difference. The cannula lines may be attached to either barb connector (Figure 2 and Figure 4).
2. Turn the flow rate selector to 0 (OFF).
3. Open the oxygen supply by SLOWLY turning the cylinder valve until you hear oxygen flow into the conserver. The pressure gauge on the conserver now reads the oxygen pressure remaining in the cylinder.
4. Listen for leaks around the cylinder connection. If a leak is detected, close the cylinder valve and reposition the conserver on the cylinder post. Then slowly reopen the cylinder valve and recheck for leaks.
5. Turn the flow rate selector to the prescribed flow rate for your desired level of activity. Selector settings represent oxygen delivered in liters per minute (lpm).
6. Unwind the cannula and ensure there are no kinks or twists in the tubing. Place the cannula over your ears and position the prongs in your nose.



Flow rate selector

Flow rate setting

Figure 4

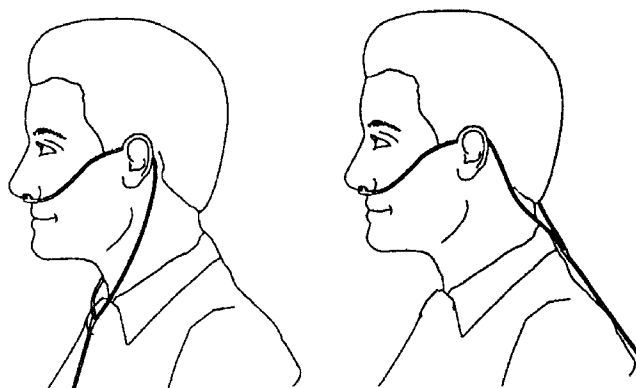


Figure 5

7. Breathe in normally through your nose. Notice that the conserver provides a pulse of oxygen during each inhalation cycle and stops oxygen flow during exhalation. The oxygen pulse is delivered in two phases: a short pulse is first given at the start of inhalation, followed by a continuous flow for the remainder of inhalation. You may also notice that oxygen is delivered through only one cannula line. To change which side oxygen is delivered, switch the cannula tubing connections on the conserver.
8. Periodically check the pressure gauge on the conserver. Install a new cylinder when the gauge reading drops into the red "Refill" zone to continue operation.

### **ENDING OPERATION**

1. Turn the cylinder valve clockwise until it is completely closed to shut off the oxygen supply.
2. Purge the oxygen in the conserver by inhaling from the cannula several times until oxygen is no longer delivered in response to inhalation.
3. Turn the flow rate selector to 0 (OFF).
4. Remove the cannula from your head. Coil the cannula tubing and store with equipment.

### **DISCONNECTING FROM THE CYLINDER**

1. Ensure that the cylinder valve is closed and the conserver is turned off as instructed in ENDING OPERATION.
2. Disconnect the cannula from the conserver.
3. Turn the T-handle counterclockwise to disconnect the conserver from the cylinder.
4. Store the equipment as instructed in CARE AND MAINTENANCE.
5. Replace the cylinder if the pressure gauge was reading in the red "Refill" zone. Refill the empty cylinder.

## **CARE AND MAINTENANCE**

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### **CLEANING**

If necessary, wipe the outside of the conserver with a clean cloth lightly dampened with warm water. Do not let water enter any holes or joints on the conserver. If extensive cleaning is required, contact your Salter Labs dealer or authorized service center.



**WARNING** - DO NOT immerse the conserver in any liquid. DO NOT use liquid cleaners or spray fluid directly on the conserver. Fluids can cause a fire hazard or may damage internal components that could lead to a malfunction.

## STORAGE

The conserver may remain connected to the oxygen cylinder for short term storage. Ensure that the cylinder valve is closed and the conserver is turned off as instructed in ENDING OPERATION. Store the equipment securely in a clean, cool environment.

For long term storage, disconnect the conserver from the cylinder as instructed in DISCONNECTING FROM THE CYLINDER. Place the conserver in its original package and store in a clean, dry environment away from oils, grease, dirt, or other contaminants. Store oxygen cylinders securely in a clean, cool environment

## MAINTENANCE

Check to ensure the inlet seal washer at the oxygen inlet is in place and in good condition. Replace a dirty or worn washer with a new Viton rubber/brass washer supplied by Salter Labs.

Unless instructed otherwise, all other maintenance must be performed by a Salter Labs authorized service center. There are no user serviceable parts inside the unit. Contact your Salter Labs dealer or authorized service center if your unit needs repair.

**WARNING** - DO NOT tamper with or attempt to repair the device.

## SPECIFICATIONS

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Specifications and appearance are subject to change without notice

|                            |   |
|----------------------------|---|
| Operating pressure         | 200-3000 psig (1,400-20,700 kPa)                                  |
| Oxygen cylinder connection | CGA 870   |
| Flow rate selections       | 0, .5, .75, 1, 1.5, 2, 2.5, 3, 4, 5, 6 lpm                        |
| Operating temperature      | 0 - 45°C (32 - 113°F)   |
| Storage temperature        | -40 - 70°C (-40 - 158°F)  |
| Size                       | 3.5 in L x 2.1 in W x 5.0 in H<br>(8.9 cm L x 5.3 cm W x 12.7 cm) |
| Weight                     | 1.0 lb (0.45 kg)  |

## ACCESSORIES

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| Model | Description   |
|-------|---|
| 4804  | Adult Nasal Divided Cannula, 4 ft. Tubing           |
| 4807  | Adult Nasal Divided Cannula, 7ft. Tubing            |
| 1248  | Inlet Seal Washers (Viton rubber/brass) (5 per pkg) |
| 1250  | E Oxygen Cylinder with CGA 870 Connector            |
| 1251  | M6 Oxygen Cylinder with CGA 870 Connector           |
| 1252  | M9 Oxygen Cylinder with CGA 870 Connector           |

## WARRANTY

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Salter Labs warrants the O<sub>2</sub>XPRESS™ Conserver to be free from defects in workmanship and materials for a period of one year from the date of purchase. Check with your dealer for more details. This warranty is limited to the original purchaser of the device. Any defective part or assembly will be repaired or replaced, at the sole discretion and determination of Salter Labs, if the unit has not been misused or tampered with during the period. Normal maintenance items, as outlined in this manual, and disposable components are not covered by this warranty. Shipping charges, if any, shall be paid by the purchaser.

THERE IS NO OTHER EXPRESS WARRANTY, IMPLIED WARRANTIES, INCLUDING THOSE OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, ARE LIMITED TO THE DURATION OF THE EXPRESS LIMITED WARRANTY AND TO THE EXTENT PERMITTED BY LAW AND ANY OTHER IMPLIED WARRANTIES ARE EXCLUDED. THIS WARRANTY DOES NOT COVER PROVIDING A LOANER, COMPENSATING FOR COST INCURRED FOR RENTAL, OR FOR LABOR COST INCURRED IN REPAIRING OR REPLACING A DEFECTIVE PART(S).

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Thank you for selecting the O<sub>2</sub>XPRESS™ Conserver. Salter Labs is an innovative, industry-leading manufacturer of respiratory care devices. Contact your local Salter Labs dealer for information about additional products.



100 W. Sycamore Road  
Arvin, California 93203 USA  
Tel: 661-854-3166  
800-421-0024  
800-235-4203  
Fax: 661-854-3850  
800-628-4690  
Internet: [www.salterlabs.com](http://www.salterlabs.com)